

REMARKS

I. Claim Rejections - 35 U.S.C. § 112, First Paragraph

Claims 1 - 9 stand rejected under 35 U.S.C. § 112, first paragraph. As an initial matter, while the Examiner explicitly makes the above rejection based on the enablement requirement, Applicant also addresses the instant rejection under the written description requirement. Applicant believes that a written description rejection might have been what the Examiner meant when making the instant rejection. In any event, this rejection is respectfully traversed as to both the enablement and written description requirements as follows.

Enablement Requirement

Under the enablement requirement, the test to be applied is whether the ordinarily skilled artisan would need to engage in "undue experimentation" in an effort to practice the invention. *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916). Applying this rule to the instant case, it is posited that even one of very little skill in the art would be enabled to practice Applicant's invention, as explained below.

Applicant's disclosure clearly enunciates (in writing and illustration) an exemplary embodiment of the invention wherein a nonvolatile memory device 100 is tested/calibrated for the optimum voltage for enabling reading and writing to the nonvolatile memory device. Applicant's example of the invention includes a feedback loop 1 (*see* Fig. 1), which includes a voltage divider 14. Voltage divider 14 provides a plurality of potential voltages, V_0 through V_7 .

The voltages provided by divider 14 are selected by selector 15. Selector 15 is controlled by the output, N , from counter 20 (as clearly shown in Figures 1 and 4, and as described at page 4 *in pari materia* (in conjunction with) pages 6 – 7 and 9 – 10; and as explicitly stated in the

Summary of the Invention at page 2, lines 23 – 25 (“[t]hus, the selector selects the one of the voltages in accordance with the value of the counter, so that the step-up voltage is brought close to the expected value.”)).

A comparator (comparator 18) compares the step-up voltage V_{pp} to an expected voltage V_{ppe} , and produces an output that assists feedback loop 2 in providing an output to counter 20. As noted above, the output of counter 20 is used to control selector 15, which selects which voltage to use from voltage divider 14. Once an acceptable read/write voltage has been determined, the then-present value of counter 20 is written to an adjustment area 12b of the non-volatile memory device 100, so that the device remembers the optimum voltage for read/write operations for that particular device. An advantage of the invention is that it enables individual calibration of read/write voltages for individual memory devices.

Accordingly, in view of the above-described exemplary embodiment provided in the written disclosure of Applicant’s invention, it is asserted that even one of little skill in the art would not be required to engage in “undue experimentation” to practice Applicant’s invention. Therefore it is respectfully requested that the Examiner reconsider and withdraw this rejection.

Written Description Requirement

Under the heading for the rejection under 35 U.S.C. § 112, first paragraph, the instant Office Action states that certain reference characters in the figures are not understood by the Examiner, including XX, NG, OK, V3, V4, V5, all of the elements in figure 6, and the bus above the read signal, R. However, the same rejection states that the claims contain subject matter which is not described in the specification in such a way so as to qualify a skilled artisan with the knowledge to make and/or use the invention. The Examiner has not stated with any particularity

whatsoever which features of the claims are alleged to have not been described in the written description of the specification in such a way so as to qualify the skilled artisan with the knowledge to make and/or use Applicant's invention.

Applicant has thoroughly reviewed the claims, and fails to find the recitation of the above-noted reference characters in the claims. Additionally, Applicant has thoroughly reviewed the features of the claims, and finds full support and disclosure (so as to qualify a skilled artisan with the knowledge to make and/or use the invention) for all of the features recited in the claims, as such are fully described in exemplary embodiments in the written description (as has been generally explained in this paper, above, under the heading "Enablement Requirement").

Applicant asserts that the reference characters, while useful in helping to illustrate embodiments and/or features of the invention, are not the claims. Here, the Examiner merely recites certain reference characters in the figures, which, although perhaps not fulfilling the precise requirement of 37 C.F.R. § 1.84(p)(5) (that all reference characters not mentioned in the description shall not be in the drawings), are nevertheless understood by the ordinarily skilled artisan as to the meaning intended by the reference characters (as further explained in Part II of this paper, below). Therefore, in light of the previous, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. Objections to the Drawings and Specification

The Drawings Under 37 C.F.R. § 1.84(p)(5)

The drawings are objected to under 37 C.F.R. § 1.84(p)(5) because not all reference characters shown in the drawings are discussed in the written description. The reference

characters in question include XX, NG, OK, V3, V4, V5, all of the elements in figure 6, and the bus above the read signal, R. This objection is respectfully traversed as follows.

As shown in the Amendments to the Specification section of this Paper, the above-noted reference characters have been incorporated into the written specification by amendment. Further, the bus above the read signal is clearly labeled as tester 200, which the ordinarily skilled artisan clearly understands as being the testing circuit to which the nonvolatile memory device 100 is attached to for testing, as is described in Applicant's specification. Accordingly, Applicant asserts that the ordinarily skilled artisan fully and readily understands the meaning of these reference characters as such were included in the originally filed drawings and that, therefore, the amendment made herein to include such meaning in the written description is in no manner an introduction of new matter. Accordingly, this objection is appropriately traversed and the Examiner is respectfully requested to reconsider and withdraw this rejection.

The Drawings Under 37 C.F.R. § 1.84(p)(4)

The Examiner objects to the drawings under 37 C.F.R. § 1.84(p)(4) allegedly because the reference character, R, is used to designate both a read signal and resistors. Applicant respectfully disagrees, as the "R" in the figures is used to designate a "read signal," while R₀ – R₇ are used to designate individual resistors, and the reasonable mind would not confuse the two. Nonetheless, Applicant herewith provides corrected drawings in which the "R" which represents "read signal" has been amended to reference character "RS." Accordingly, this objection is appropriately traversed and the Examiner is therefore respectfully requested to reconsider and withdraw this objection.

The Specification

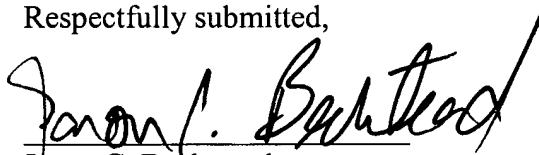
The specification is objected to because of a spelling error. The spelling of the word “resistor” at line 8, page 8, is herein corrected. Accordingly, the Examiner is respectfully requested to reconsider and withdraw this objection.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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Date: July 13, 2004

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: July 13, 2004

Signed: 
Mariann Tam